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TDA Call Centre Solution

The KX-TDA Hybrid IP PBX comes with built-in sophisticated Call Centre solution that is flexible enough for most customer needs - allowing businesses to efficiently route customer calls to appropriate departments, agents, agent groups, or queues.

Companies looking for cost effective Call Centre solutions can leverage built-in functionalities such as Uniform Call Distribution (UCD), Queuing Time table, and Supervisor functions. Agents can also work more efficiently using built-in features such as Log-in/Log-out, Wrap-up, and Hot desking - thereby increasing agent productivity as well as overall business productivity.

For advanced Call Centre functionality - optional DISA (KX-TDA0191/TDA5191) message card and/or TVA50/TVA200 Voice Processing System can be used to further enhance the system features. Additionally - by using TAPI, or CSTA via high-speed communication interfaces such as built-in USB or optional LAN (CTI Link card - TDA0410) - third party CTI software solutions designed specifically for Call Centre businesses can be employed especially where integration with Customer Relationship Management (CRM) databases is required providing customer details via screen pops to agents when they receive customer calls.

Built-in Call Centre Functions

The TDA PBX supports Incoming Call Distribution (ICD) Groups - the basic building blocks to implement Call Centre functionality. Incoming calls received by an ICD group can be distributed to Call Centre agents using supported Call distribution methods. When a pre-programmed number of agents in the group are busy, additional incoming calls can be put in a queue. Agents can also be assigned to multiple ICD groups - allowing for a smaller number of agents to handle calls in multiple ICD groups in order to operate a flexible call centre. In addition - supervisors can monitor multiple ICD groups, monitoring agent performances via system telephone.

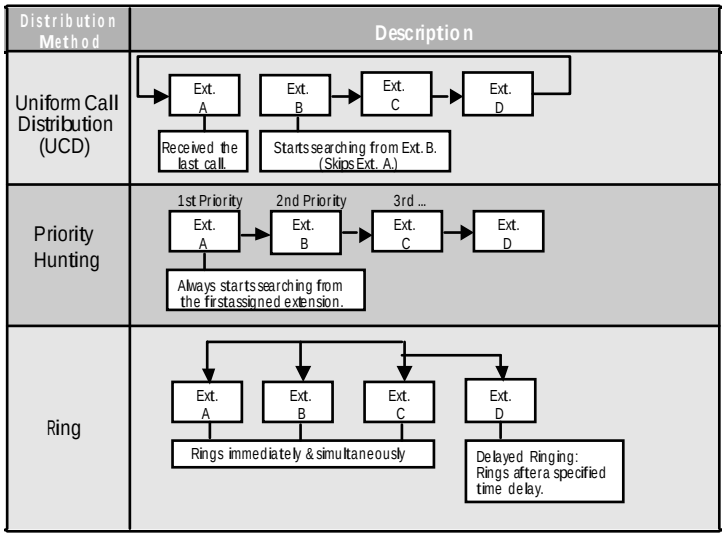
Call Distribution Methods

The system provides three standard call distribution methods.
It is also possible to prioritise incoming call distribution groups themselves. If an agent extension belongs to multiple groups and the extension becomes idle, any queued calls in the group are distributed to the idle agent in priority order.

- **Uniform Call Distribution**
  Calls are distributed to a different agent's extension uniformly each time a new incoming call is received. Extensions are hunted in a circular way in the pre-programmed order for the group, starting after the telephone extension that received the last call.

- **Priority Hunting**
  Upon receiving an incoming call, an idle extension is searched for - using the pre-programmed order for the group.

- **Ring**
  Upon receiving an incoming call, all extension members in the ICD group ring simultaneously.
  Delayed ringing or no ringing can be programmed for each extension in the group.
  The call can be answered by pressing the flashing button even if no ring or a delayed time is set.



TDA supported Call distribution table

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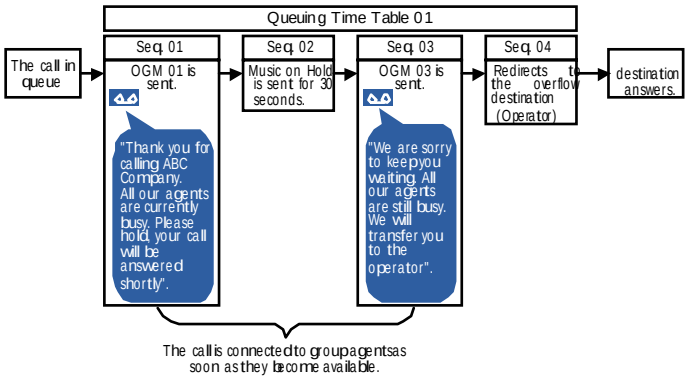
Queuing Feature

If agents in an ICD group are busy, the system allows additional calls to be routed to queues. Extensive messaging options are available for calls waiting in queue. Queues can be programmed to play specific recorded voice messages* to callers, or calls in queues can be sent to an overflow extension or a department or group voicemail** box.

While calls are waiting in queue, callers can hear music or pre-recorded promotional messages to help reduce lost calls and missed business opportunities. Calls in queues are handled based on sequences as programmed in the Queuing Time Table (see below). The sequences can be assigned for each time of day mode (day/lunch/break/night) and each Queuing Time Table has a specified number of sequences.

*: Requires optional DISA (KX-TDA0191/5191) Message card.

**: Requires an optional TVA50/TVA200 Voice Mail system.


Queuing Time Table 01
The call in queue
Seq. 01
OGM 01 is sent.
"Thank you for calling ABC Company. All our agents are currently busy. Please hold, your call will be answered shortly".
Seq. 02
Music on Hold is sent for 30 seconds.
Seq. 03
OGM 03 is sent.
"We are sorry to keep you waiting. All our agents are still busy. We will transfer you to the operator".
Seq. 04
Redirects to the overflow destination (Operator)
destination answers.
The call is connected to group agents as soon as they become available.

Overflow Feature

If due to high call traffic, the queues to ICD groups become full, or an overflow timer has been set, the calls can be redirected to a pre-programmed overflow destination (Intercept Routing) or if no overflow level is set, a busy tone may be sent to the callers.

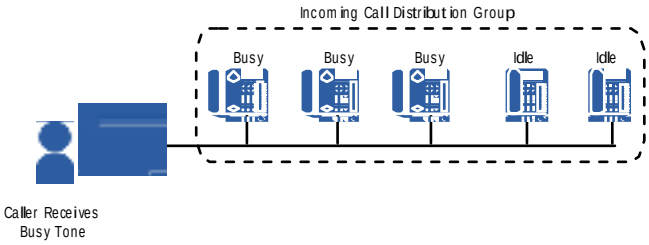
Intercept Routing/Overflow in an ICD Group

The Intercept Routing/Overflow can be assigned for each ICD group and for each time mode (day/lunch/break/night). The types of destinations that can be assigned as overflow destinations are:

- An Extension (Proprietary Telephone/Analogue Telephone/IP Extension)
- ICD group / Voice Mail Group
- An Operator
- DISA/Auto Attendant
- Analogue Trunk/ISDN/IP Trunk
- External Pager/Ringer
- PBX within the Private Network

Busy on Busy

When an incoming call enters an ICD group and a pre-programmed number of agent extensions in that group are busy, the caller will hear a busy tone or enter the calling queue, even if there are idle extensions available in that group*.



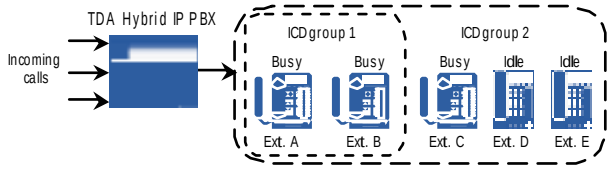
For Example: If five agents have been added to an ICD group and the maximum number of answering agents is set to three extensions, even if the remaining two extensions are idle, the next incoming call will receive a busy signal or enter the call queue. This feature is useful if a member or multiple members of staff must be available to perform tasks other than answering the telephone e.g. if they are dealing face to face with customers.

Note:

* If no overflow destination has been pre-programmed. Log-in/Log-out is not suitable for this type of application..

Group Expansion

When all the members of an ICD group become busy it is possible to expand the group by using the overflow feature. The overflow ICD group will receive calls until a member of the original ICD group becomes available.



Hurry-up Button

A flexible button can be programmed as a Hurry-up button. It is used to redirect the longest waiting call in the queue of an ICD group to the overflow destination. This feature is also known as Hurry-up Transfer. The number of calls held in a queue before Hurry-up transfer may be performed is programmable.

Red flash	Over the assigned number for Hurry-up
Red on	At or under the assigned number for Hurry-up
Off	No Queued Calls

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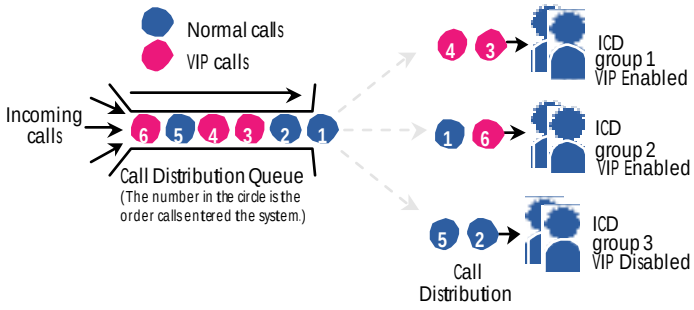
- **Intercept Timer (Day/Lunch/Break/Night)**
  Intercept Timer function provides automatic redirection of incoming trunk calls to a pre-programmed extension after an Intercept time has been reached. The system provides four modes of Intercept Timer (Day/Lunch/Break/Night) for the whole system.

- **VIP Call**
  By enabling VIP call mode, Call Centres using multiple ICD groups can give priority in routing calls to agents to give quicker response time to certain incoming calls e.g. Calls to ICD groups for Sales, and Accounts can be given higher priority. Businesses can also use VIP call mode to provide faster call answering to VIP customers dialling into a certain ICD group.

  When multiple groups enable VIP Call mode, the lowest number ICD group has the highest priority when receiving calls.



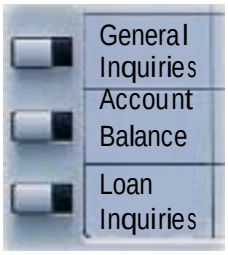
- **Qualify Code (Account Code)**
  By implementing PBX Account Codes as Qualify Codes - Call Centre Managers can have the ability to make detailed analysis about all incoming/outgoing calls.

  Agents can enter a relevant 1-10 digit account code to qualify the type of call, customer, or inquiry - which gets displayed on the SMDR print out of the call.

  The code can be entered as:
  - Option - Allowing agents to enter the code at any time during the call
  - Forced - Requiring agents to enter a code at the start (or end) of the call.

  For ease of use, telephone DSS keys can be programmed with the Qualify Codes allowing agents to simply press the key when required.

Example:
Agents at a Bank Service Center may have the following account codes programmed for agents to qualify the calls.



Date	Time	Ext	CO	Dial Number	Ring Duration	Acc code	CD
03/06/04	13:36	102	01	12345678901 23	00:00'30	0010	TR
03/06/04	13:37	112	02	12345678901 23	00:02'15	0020	TR
03/06/04	13:51	134	04	12345678901 23	00:04'03	0030	TR
03/06/04	13:56	213	06	12345678901 23	00:01'20	0040	TR
03/06/04	13:58	161	11	12345678901 23	00:03'30	1234567890	TR

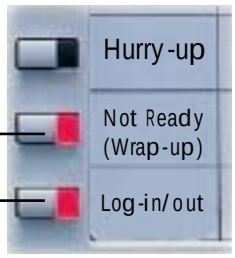
Call Accounting software packages can be used to generate detailed reports based on the qualify codes used to categorise calls. E.g. 0010 = General Inquiries.

- **Agent Features**
  The system supports extensive standard call centre agent features. Agents can log-in/log-out from any specific or all of the ICD group(s) they are member of, and delay receiving new customer call while they are busy wrapping-up and processing the previous customer calls. To avoid missed calls, agents can be programmed to be automatically logged-out if they consistently not answer calls a predetermined number of times. Additionally, in order to support flexible working environment the system supports 'Hot Desking' where agents can log-in to any unused desk phone with a pre-programmed ID number (making the phone settings temporarily as their own).
  In order to bill customers for outbound calls, or to keep track of outbound calls with a view to managing call cost, agents can also be required to enter account-code when making calls.

  - Log-in/Log-out (Specific ICD group, All ICD group)
  - Automatic Log-out
  - Hot Desking/Walking Extensions for Virtual Extensions
  - Wrap-up
  - Account Code (Qualify Code)

Wrap-up LED Indication	
Red flash	Wrap-up mode
Red on	Not Ready
Off	Ready

Log-in LED Indication	
Red on	LoggedOut
Off	LoggedIn



Supervisory Features

The TDA PBX supports built-in Call Centre Supervisor features - allowing management and performance overview in real-time of calls in queue and agent call handling. In addition, the supervisor extension can, using a 6-line system display telephone (e.g. T7636), also monitor various important Call Centre Statistics showing items such as: Total calls handled, Average wait time, Lost calls etc.

Real Time Monitor

31 Jan. 08:13AM FRI	---Date and time
250:Sales Section	---Floating extension number/name of ICD group
Waiting Calls Now :00006	---The number of queuing calls
Max. Waiting Time :05'10	---The longest queuing time
EXIT LOG SPRVS	

History Analysis

Since 29 JAN. 09:10AM	---Monitoring starting date and time
Total Calls :00996	---Total number of incoming calls
Overflow Calls :00131	---Total number of overflowed calls
Lost Calls :00039	---The number of lost calls
Average Waiting :02'12	---Average queuing time
EXIT CLEAR	

The supervisor can monitor each agent member's phone status and also remotely log-in and add a currently logged out agent member's extension, or log-out an agent phone - simply by pressing the corresponding agent's DSS key on the supervisor extension.

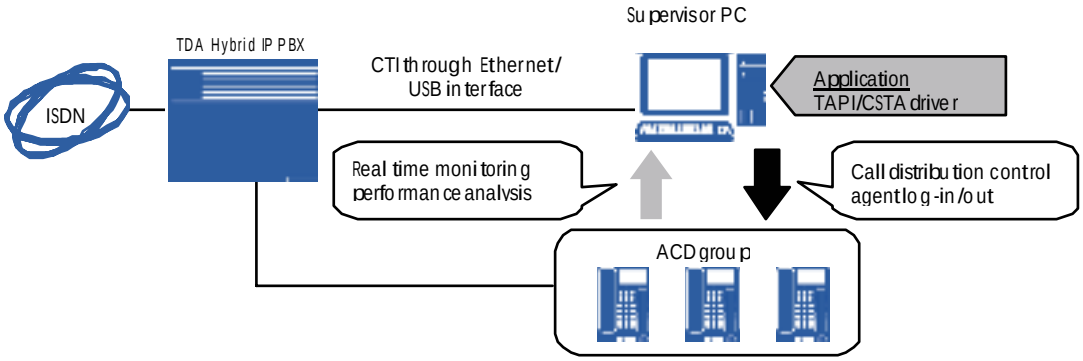
	Log-in	Log-Out
Ready	Green On	Red On
Not Ready	Red Flashing	Red On

Buttons of extensions in another ICD group will turn off.

Advanced Call Centre Application Support

Customers requiring advanced Call Centre features and functionalities can deploy readily available Call Centre software solutions from CTI software vendors. These software solutions integrate with the Panasonic TDA PBX via industry standard TAPI, or CSTA interfaces - both of which are supported by the TDA PBXs.
A typical 3rd party CTI based Call Centre software set up is illustrated below.

Please contact your Panasonic Sales Company to find out which CTI software application is right for your business.



For further information, please review the TDA General Description document.